

Serial Number: 09/909,474B

Ch. Processing Date: 4/8/02
Edited by: DC
Verified by: (STIC staff) Changed a file from non-ASCII to ASCII Changed the margins in cases where the sequence text was "wrapped" down to the next line. Edited a format error in the Current Application Data section, specifically:**ENTERED** Edited the Current Application Data section with the actual current number. The number inputted by the applicant was the prior application data; or other _____. Added the mandatory heading and subheadings for "Current Application Data". Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer. Changed the spelling of a mandatory field (the headings or subheadings), specifically: Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place. Inserted colons after headings/subheadings. Headings edited included: Deleted extra, invalid, headings used by an applicant, specifically: Deleted: non-ASCII "garbage" at the beginning/end of files; secretary initials/filename at end of file; page numbers throughout text; other invalid text, such as _____. Inserted mandatory headings, specifically: Corrected an obvious error in the response, specifically: Edited identifiers where upper case is used but lower case is required, or vice versa. Corrected an error in the Number of Sequences field, specifically: A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted. Deleted ending stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: Other:



OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/909,474B

DATE: 04/08/2002
TIME: 12:59:25

Input Set : A:\PTO.DC.txt
Output Set: N:\CRF3\04082002\I909474B.raw

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66	Pro	His	Lys	His	Val	Ala	Arg	Pro	Thr	Glu	Val	Leu	Ala	Gly	Thr	Gln	
67					120				125							130	
69	ctc	ctc	tac	gcc	ttt	ttc	act	cgg	acc	cat	ggg	gac	atg	cac	agc	ctg	489
70	Leu	Leu	Tyr	Ala	Phe	Phe	Thr	Arg	Thr	His	Gly	Asp	Met	His	Ser	Leu	
71					135				140							145	
73	gtg	cga	agc	cgc	cac	cgt	atc	cct	gag	cct	gac	gtg	gcc	ctc	ttc		537
74	Val	Arg	Ser	Arg	His	Arg	Ile	Pro	Glu	Pro	Glu	Ala	Ala	Val	Leu	Phe	
75					150				155							160	
77	cgc	cag	atg	gcc	acc	gcc	ctg	gcg	cac	tgt	cac	cag	cac	ggt	ctg	gtc	585
78	Arg	Gln	Met	Ala	Thr	Ala	Leu	Ala	His	Cys	His	Gln	His	Gly	Leu	Val	
79					165				170							175	
81	ctg	cgt	gat	ctc	aag	ctg	tgt	cgc	ttt	gtc	ttc	gct	gac	cgt	gag	agg	633
82	Leu	Arg	Asp	Leu	Lys	Leu	Cys	Arg	Phe	Val	Phe	Ala	Asp	Arg	Glu	Arg	
83	180				185				190							195	
85	aag	aag	ctg	gtg	ctg	gag	aac	ctg	gag	gac	tcc	tgc	gtg	ctg	act	ggg	681
86	Lys	Lys	Leu	Val	Leu	Glu	Asn	Leu	Glu	Asp	Ser	Cys	Val	Leu	Thr	Gly	
87					200				205							210	
89	cca	gat	gat	tcc	ctg	tgg	gac	aag	cac	gcg	tgc	cca	gcc	tac	gtg	gga	729
90	Pro	Asp	Asp	Ser	Leu	Trp	Asp	Lys	His	Ala	Cys	Pro	Ala	Tyr	Val	Gly	
91					215				220							225	
93	cct	gag	ata	ctc	agc	tca	cg	gcc	tca	tac	tcg	ggc	aag	gca	gcc	gat	777
94	Pro	Glu	Ile	Leu	Ser	Ser	Arg	Ala	Ser	Tyr	Ser	Gly	Lys	Ala	Ala	Asp	
95					230				235							240	
97	gtc	tgg	agc	ctg	ggc	gtg	gcf	ctc	ttc	acc	atg	ctg	gcc	ggc	cac	tac	825
98	Val	Trp	Ser	Leu	Gly	Val	Ala	Leu	Phe	Thr	Met	Leu	Ala	Gly	His	Tyr	
99					245				250							255	
101	ccc	tcc	cag	gac	tcg	gag	cct	gtc	ctg	ctc	ttc	ggc	aag	atc	cgc	cgc	873
102	Pro	Phe	Gln	Asp	Ser	Glu	Pro	Val	Leu	Leu	Phe	Gly	Lys	Ile	Arg	Arg	
103	260				265				270							275	
105	ggg	gcc	tac	gcc	ttg	cct	gca	ggc	ctc	tcg	gcc	cct	gcc	cgc	tgt	ctg	921
106	Gly	Ala	Tyr	Ala	Leu	Pro	Ala	Gly	Leu	Ser	Ala	Pro	Ala	Arg	Cys	Leu	
107					280				285							290	
109	gtt	cg	tc	ct	ct	cgt	cg	g	cc	a	gt	gaa	cg	ct	ac	g	969
110	Val	Arg	Cys	Leu	Leu	Arg	Arg	Glu	Pro	Ala	Glu	Arg	Leu	Thr	Ala	Thr	
111					295				300							305	
113	ggc	atc	ctc	ctg	cac	ccc	tgg	ctg	cga	cag	gac	ccg	atg	ccc	tta	gcc	1017
114	Gly	Ile	Leu	Leu	His	Pro	Trp	Leu	Arg	Gln	Asp	Pro	Met	Pro	Leu	Ala	
115					310				315							320	
117	cca	acc	cga	tcc	cat	ctc	tgg	gag	gct	gcc	cag	gtg	gtc	cct	gat	gga	1065
118	Pro	Thr	Arg	Ser	His	Leu	Trp	Glu	Ala	Ala	Gln	Val	Val	Pro	Asp	Gly	
119					325				330							335	
121	ctg	ggg	ctg	gac	gaa	gcc	agg	gaa	gag	gag	gga	gac	aga	gaa	gtg	gtt	1113
122	Leu	Gly	Leu	Asp	Glu	Ala	Arg	Glu	Glu	Glu	Gly	Asp	Arg	Glu	Val	Val	
123	340				345				350							355	
125	ctg	tat	ggc	taggaccacc	ctactacacg	ctc	agctg	cc	aac	agt	ggat						1162
126	Leu	Tyr	Gly														
129	ttagtttggg	ggtagctcca	agc	c	ttt	ctc	cc	tgc	c	tgc	aa	c	ttt	c	ttt	gc	1222
131	cttccagaag	ggagaaaaggc	aga	agg	c	ctgt	gtgt	gtgt	gtgt	gtgt	gtgt	atct	gttttgc	tttgc	tttgc	tttgc	1282
133	ttccacacac	atgcagg	ttcc	tgcttgggtt	cttat	cagg	gtt	ccac	ccct	gtt	tcgg	gtt	tcgg	gtt	tcgg	gtt	1342

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135	ctgggagtagc	agcagtggac	aaaggagaca	atattccctg	ctcacagaga	tgacaaaactg	1402											
137	gcattccttga	gctgacaaca	cttttccatg	accataggtc	actgtctaca	ctgggtacac	1462											
139	tttgttaccag	tgtcgccctc	cactgatgct	ggtgctcagg	cacctctgtc	caaggacaat	1522											
141	cccttcaca	aacaaaccag	ctgcctttgt	atcttgtacc	ttttcagaga	aaggaggta	1582											
143	ccctgtgcc	aaaggctcca	ggcctctccc	ctgcaactca	ggacccaagc	ccagctcact	1642											
145	ctgggaactg	tgttccca	ggcctctccc	ctgcaactca	ggacccaagc	ccagctcact	1702											
147	aagcctggg	tttggggccag	agataagaat	ccaaactatg	aggctagttc	ttgtctaact	1762											
149	caagactgtt	ctggaaatgag	ggtccaggcc	tgtcaaccat	ggggcttctg	acctgagcac	1822											
151	caagggttgag	ggacaggatt	aggcagggtc	tgtccctgtgg	ccacctggaa	agtcccaggt	1882											
153	gggactcttc	tggggacact	tggggtccac	aatcccaggt	ccatactcta	ggttttggat	1942											
155	accatgagta	tgtatgtta	cctgtgccta	ataaaaggaga	attatgaaat	aaaaaaaaaa	2002											
157	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	2059											
160	<210>	SEQ ID NO:	2															
161	<211>	LENGTH:	358															
162	<212>	TYPE:	PRT															
163	<213>	ORGANISM:	Homo sapiens															
165	<400>	SEQUENCE:	2															
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168	1				5				10						15			
171	Lys	Arg	Leu	Glu	Leu	Asp	Asp	Asn	Leu	Asp	Thr	Glu	Arg	Pro	Val	Gln		
172					20				25						30			
175	Lys	Arg	Ala	Arg	Ser	Gly	Pro	Gln	Pro	Arg	Leu	Pro	Pro	Cys	Leu	Leu		
176					35				40						45			
179	Pro	Leu	Ser	Pro	Pro	Thr	Ala	Pro	Asp	Arg	Ala	Thr	Ala	Val	Ala	Thr		
180					50				55						60			
183	Ala	Ser	Arg	Leu	Gly	Pro	Tyr	Val	Leu	Leu	Glu	Pro	Glu	Glu	Gly			
184					65				70						75		80	
187	Arg	Ala	Tyr	Arg	Ala	Leu	His	Cys	Pro	Thr	Gly	Thr	Glu	Tyr	Thr	Cys		
188							85				90				95			
193	Lys	Val	Tyr	Pro	Val	Gln	Glu	Ala	Leu	Ala	Val	Leu	Glu	Pro	Tyr	Ala		
194							100				105				110			
197	Arg	Leu	Pro	Pro	His	Lys	His	Val	Ala	Arg	Pro	Thr	Glu	Val	Leu	Ala		
198							115				120				125			
201	Gly	Thr	Gln	Leu	Leu	Tyr	Ala	Phe	Phe	Thr	Arg	Thr	His	Gly	Asp	Met		
202							130				135				140			
205	His	Ser	Leu	Val	Arg	Ser	Arg	His	Arg	Ile	Pro	Glu	Pro	Glu	Ala	Ala		
206							145				150				155		160	
209	Val	Leu	Phe	Arg	Gln	Met	Ala	Thr	Ala	Leu	Ala	His	Cys	His	Gln	His		
210							165				170				175			
213	Gly	Leu	Val	Leu	Arg	Asp	Leu	Lys	Leu	Cys	Arg	Phe	Val	Phe	Ala	Asp		
214							180				185				190			
217	Arg	Glu	Arg	Lys	Lys	Leu	Val	Leu	Glu	Asn	Leu	Glu	Asp	Ser	Cys	Val		
218							195				200				205			
221	Leu	Thr	Gly	Pro	Asp	Asp	Ser	Leu	Trp	Asp	Lys	His	Ala	Cys	Pro	Ala		
222							210				215				220			
225	Tyr	Val	Gly	Pro	Glu	Ile	Leu	Ser	Ser	Arg	Ala	Ser	Tyr	Ser	Gly	Lys		
226							225				230				235		240	
229	Ala	Ala	Asp	Val	Trp	Ser	Leu	Gly	Val	Ala	Leu	Phe	Thr	Met	Leu	Ala		
230							245				250				255			

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Input Set : A:\PTO.DC.txt
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233 Gly His Tyr Pro Phe Gln Asp Ser Glu Pro Val Leu Leu Phe Gly Lys
234      260          265          270
237 Ile Arg Arg Gly Ala Tyr Ala Leu Pro Ala Gly Leu Ser Ala Pro Ala
238      275          280          285
241 Arg Cys Leu Val Arg Cys Leu Leu Arg Arg Glu Pro Ala Glu Arg Leu
242      290          295          300
245 Thr Ala Thr Gly Ile Leu His Pro Trp Leu Arg Gln Asp Pro Met
246 305      310          315          320
249 Pro Leu Ala Pro Thr Arg Ser His Leu Trp Glu Ala Ala Gln Val Val
250      325          330          335
253 Pro Asp Gly Leu Gly Leu Asp Glu Ala Arg Glu Glu Glu Gly Asp Arg
254      340          345          350
257 Glu Val Val Leu Tyr Gly
258      355
261 <210> SEQ ID NO: 3
262 <211> LENGTH: 21
263 <212> TYPE: DNA
264 <213> ORGANISM: Artificial Sequence
266 <220> FEATURE:
267 <223> OTHER INFORMATION: PCR Primer
269 <400> SEQUENCE: 3
270 tggtgctgga gaacctggag g          21
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275 <212> TYPE: DNA
276 <213> ORGANISM: Artificial Sequence
278 <220> FEATURE:
279 <223> OTHER INFORMATION: PCR Primer
W--> 280 <400> SEQUENCE: 4          21
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284 <210> SEQ ID NO: 5
285 <211> LENGTH: 11
286 <212> TYPE: PRT
287 <213> ORGANISM: Artificial Sequence
289 <220> FEATURE:
290 <223> OTHER INFORMATION: HIV TAT peptide
292 <400> SEQUENCE: 5
294 Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg
295 1      5          10
297 <210> SEQ ID NO: 6
298 <211> LENGTH: 20
299 <212> TYPE: DNA
300 <213> ORGANISM: Artificial Sequence
302 <220> FEATURE:
303 <223> OTHER INFORMATION: PCR Primer
305 <400> SEQUENCE: 6
306 cggggcgaga tgcgagccac          20
309 <210> SEQ ID NO: 7
310 <211> LENGTH: 20

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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/909,474B

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Input Set : A:\PTO.DC.txt
Output Set: N:\CRF3\04082002\I909474B.raw

311 <212> TYPE: DNA
312 <213> ORGANISM: Artificial Sequence
314 <220> FEATURE:
315 <223> OTHER INFORMATION: PCR Primer
317 <400> SEQUENCE: 7
318 agggtggtcc tagccataca 20
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322 <211> LENGTH: 358
323 <212> TYPE: PRT
324 <213> ORGANISM: Homo sapiens
326 <400> SEQUENCE: 8
328 Met Arg Ala Thr Pro Leu Ala Ala Pro Ala Gly Ser Leu Ser Arg Lys
329 1 5 10 15
331 Lys Arg Leu Glu Leu Asp Asp Asn Leu Asp Thr Glu Arg Pro Val Gln
332 20 25 30
334 Lys Arg Ala Arg Ser Gly Pro Gln Pro Arg Leu Pro Pro Cys Leu Leu
335 35 40 45
337 Pro Leu Ser Pro Pro Thr Ala Pro Asp Arg Ala Thr Ala Val Ala Thr
338 50 55 60
340 Ala Ser Arg Leu Gly Pro Tyr Val Leu Leu Glu Pro Glu Glu Gly
341 65 70 75 80
343 Arg Ala Tyr Gln Ala Leu His Cys Pro Thr Gly Thr Glu Tyr Thr Cys
344 85 90 95
346 Lys Val Tyr Pro Val Gln Glu Ala Pro Ala Val Leu Glu Pro Tyr Ala
347 100 105 110
349 Arg Leu Pro Pro His Lys His Val Ala Arg Pro Thr Glu Val Leu Ala
350 115 120 125
352 Gly Thr Gln Leu Leu Tyr Ala Phe Phe Thr Arg Thr His Gly Asp Met
353 130 135 140
355 His Ser Leu Val Arg Ser Arg His Arg Ile Pro Glu Pro Glu Ala Ala
356 145 150 155 160
358 Val Leu Phe Arg Gln Met Ala Thr Ala Leu Ala His Cys His Gln His
359 165 170 175
361 Gly Leu Val Leu Arg Asp Leu Lys Leu Cys Arg Phe Val Phe Ala Asp
362 180 185 190
364 Arg Glu Arg Lys Lys Leu Val Leu Glu Asn Leu Glu Asp Ser Cys Val
365 195 200 205
367 Leu Thr Gly Pro Asp Asp Ser Leu Trp Asp Lys His Ala Cys Pro Ala
368 210 215 220
370 Tyr Val Gly Pro Glu Ile Leu Ser Ser Arg Ala Ser Tyr Ser Gly Lys
371 225 230 235 240
373 Ala Ala Asp Val Trp Ser Leu Gly Val Ala Leu Phe Thr Met Leu Ala
374 245 250 255
376 Gly His Tyr Pro Phe Gln Asp Ser Glu Pro Val Leu Leu Phe Gly Lys
377 260 265 270
379 Ile Arg Arg Gly Ala Tyr Ala Leu Pro Ala Gly Leu Ser Ala Pro Ala
380 275 280 285
382 Arg Cys Leu Val Arg Cys Leu Leu Arg Arg Glu Pro Ala Glu Arg Leu
383 290 295 300

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/09/909,474B

DATE: 04/08/2002
TIME: 12:59:26

Input Set : A:\PTO.DC.txt
Output Set: N:\CRF3\04082002\I909474B.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:9; Xaa Pos. 136,138,141,142,143,152

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/909,474B

DATE: 04/08/2002

TIME: 12:59:26

Input Set : A:\PTO.DC.txt

Output Set: N:\CRF3\04082002\I909474B.raw

L:280 M:283 W: Missing Blank Line separator, <400> field identifier

L:458 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:128

L:461 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:144



OIPE

Does Not Comply
Corrected Diskette Needed

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/909,474B

DATE: 04/04/2002
TIME: 16:59:39

Input Set : A:\PTO.VSK.txt
Output Set: N:\CRF3\04042002\I909474B.raw

5 <110> APPLICANT: Boylan, John
6 Bowers, Alex
8 <120> TITLE OF INVENTION: Novel Serine Threonine Kinase Member, h2520-59
10 <130> FILE REFERENCE: 01017/36524A
12 <140> CURRENT APPLICATION NUMBER: US/09/909,474B
13 <141> CURRENT FILING DATE: 2001-07-19
15 <150> PRIOR APPLICATION NUMBER: US 60/219,204
16 <151> PRIOR FILING DATE: 2000-07-19
18 <160> NUMBER OF SEQ ID NOS: 15
20 <170> SOFTWARE: PatentIn version 3.0

ERRORED SEQUENCES

644 <210> SEQ ID NO: 15
645 <211> LENGTH: 25
646 <212> TYPE: PRT
647 <213> ORGANISM: Homo sapiens
649 <400> SEQUENCE: 15
651 Arg Ser His Leu Trp Glu Ala Ala Gln Val Val Pro Asp Gly Leu Gly
652 1 5 10 15
654 Leu Asp Glu Ala Arg Glu Glu Cys
655 20 25
E--> 658 -4- -delete-

VERIFICATION SUMMARY
PATENT APPLICATION: US/09/909,474B

DATE: 04/04/2002
TIME: 16:59:40

Input Set : A:\PTO.VSK.txt
Output Set: N:\CRF3\04042002\I909474B.raw

L:280 M:283 W: Missing Blank Line separator, <400> field identifier
L:458 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:461 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:658 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:15